**POM.xml**

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.training.section2</groupId>

<artifactId>section2</artifactId>

<version>0.0.1-SNAPSHOT</version>

<dependencies>

<dependency>

<groupId>org.apache.beam</groupId>

<artifactId>beam-sdks-java-core</artifactId>

<version>2.19.0</version>

</dependency>

<dependency>

<groupId>org.apache.beam</groupId>

<artifactId>beam-runners-direct-java</artifactId>

<version>2.19.0</version>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<artifactId>maven-assembly-plugin</artifactId>

<configuration>

<archive>

<manifest>

<mainClass>section2.LocalFileExample</mainClass>

</manifest>

</archive>

<descriptorRefs>

<descriptorRef>jar-with-dependencies</descriptorRef>

</descriptorRefs>

</configuration>

<executions>

<execution>

<id>make-assembly</id>

<phase>package</phase>

<goals>

<goal>single</goal>

</goals>

</execution>

</executions>

</plugin>

</plugins>

</build>

</project>

CustomerEntity.java

**package** section2;

**import** java.io.Serializable;

**public** **class** CustomerEntity **implements** Serializable {

**private** String id;

**private** String name;

**public** CustomerEntity() {

}

**public** CustomerEntity(String pId,String pName) {

**this**.id=pId;

**this**.name=pName;

}

**public** String getId() {

**return** id;

}

**public** **void** setId(String id) {

**this**.id = id;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

}

InmemoryExample.java

package section2;

import java.util.ArrayList;

import java.util.List;

import org.apache.beam.sdk.Pipeline;

import org.apache.beam.sdk.io.TextIO;

import org.apache.beam.sdk.transforms.Create;

import org.apache.beam.sdk.transforms.MapElements;

import org.apache.beam.sdk.values.PCollection;

import org.apache.beam.sdk.values.TypeDescriptors;

public class InmemoryExample {

public static void main(String[] args) {

Pipeline p = Pipeline.create();

PCollection<CustomerEntity> pList = p.apply(Create.of(getCustomers()));

PCollection<String> pStrList = pList.apply(MapElements.into(TypeDescriptors.strings()).via((CustomerEntity cust) -> cust.getName()));

pStrList.apply(TextIO.write().to("C:\\Beam\\customer.csv").withNumShards(1).withSuffix(".csv"));

p.run();

}

static List<CustomerEntity> getCustomers(){

CustomerEntity c1 = new CustomerEntity("1001","John");

CustomerEntity c2 = new CustomerEntity("1002","Adam");

List<CustomerEntity> list = new ArrayList<CustomerEntity>();

list.add(c1);

list.add(c2);

return list;

}

}

LocalFileExample.java

package section2;

import java.util.ArrayList;

import java.util.List;

import org.apache.beam.sdk.Pipeline;

import org.apache.beam.sdk.io.TextIO;

import org.apache.beam.sdk.options.PipelineOptionsFactory;

import org.apache.beam.sdk.transforms.Create;

import org.apache.beam.sdk.transforms.MapElements;

import org.apache.beam.sdk.values.PCollection;

import org.apache.beam.sdk.values.TypeDescriptor;

import org.apache.beam.sdk.values.TypeDescriptors;

public class LocalFileExample {

public static void main(String[] args) {

Myoptions options=PipelineOptionsFactory.fromArgs(args).withValidation().as(Myoptions.class);

Pipeline pipeline = Pipeline.create(options);

PCollection<String> output= pipeline.apply(TextIO.read().from(options.getInputFile()));

output.apply(TextIO.write().to(options.getOutputFile()).withNumShards(1).withSuffix(options.getExtn()));

pipeline.run();

}

}

Myoptions.java

**package** section2;

**import** org.apache.beam.sdk.options.PipelineOptions;

**public** **interface** Myoptions **extends** PipelineOptions {

**void** setInputFile(String file);

String getInputFile();

**void** setOutputFile(String file);

String getOutputFile();

**void** setExtn(String extn);

String getExtn();

}